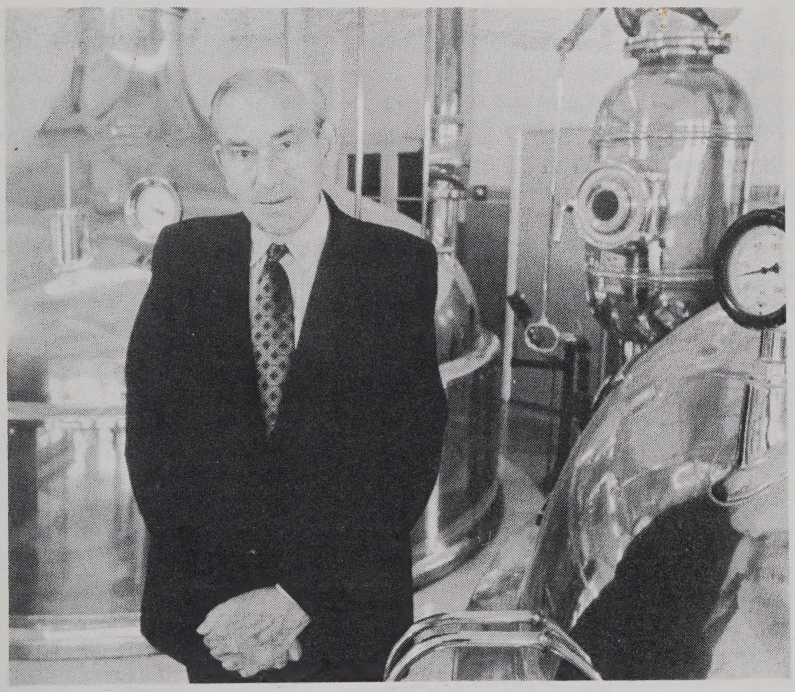
N.Z.V.R.S. Bulletin

NEW ZEALAND VINTAGE RADIO SOCIETY
Vol. 14 No.4. February 1994



Photograph courtesy of The N.Z. Herald.

WHO IS THIS MAN AND WHAT IS HE DOING HERE?
SEE PAGE 3.

NEW ZEALAND VINTAGE RADIO SOCIETY

A non-profit organization devoted to the preservation of early radio equipment and associated historical information.

PRESIDENT; Murray Stevenson
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TREASURER; Bryan Marsh
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MEETINGS; Regular Auckland of the NZVRS are held on the third Monday of each month at 7.30pm.
VENUE; Meeting room of the Dominion Road Methodist Church (at the rear of the Church) 426 Dominion Road Mt Eden.
AUCTION SALES of vintage items are held quarterly in the months of March, June, September and December at that month's club meeting.

AUCKLAND MEETINGS CALENDAR
FEBRUARY Westco with Jocelyn Chadwick
MARCH Auction
APRIL To be announced

WELLINGTON AREA MEETINGS
Monthly meeting are held at the Tireti Hall, Te Pene Ave. Titahi Bay at 1pm on the first Sunday of every month. For further details contact Neville Grubner at 2 Peckham Grove Linden Wellington Phone 2326806.

FOR SALE BY NZVRS; Three core brown cloth covered 230 volt cable and lapel badges, AK cathedral shape $5 posted, order from the Treasurer.

THE NZVRS BULLETIN is published quarterly in the months of February, May, August and November. Contributions from members are always welcome and should be sent to the Editor. Opinions expressed by writers are not necessarily those of the society.
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BACK NUMBERS OF THE NZVRS BULLETIN; Most issues are still available, though some of the earlier issues are now out of print. Price is $1 each for numbers up to volume 10 and $2 for issues from volume 10 onwards. Postage is extra. Cheques to be made out to NZVRS. Order from John Stokes at the above address.

NZVRS LIBRARY; Members are reminded that our NZVRS library contains a good selection of books plus magazines and newsletters of several overseas societies. A list of publications is available from our librarian: Clarry Schollum 34 Pentland Ave. Mt. Eden Auckland. Phone 09-6307011.

WAIKATO AREA MEETINGS are held regularly, contact Eric Carter 3 Haines Tce. Te Kuiti Phone 07-8788888.

MORTON COUTTS.....A RADIO PIONEER

If you were asked to guess the age of the well dressed figure on the front cover of this issue your guess would likely be well off the mark and you would probably find it hard to believe that he is an octogenarian soon to become a nonagenarian. In August, 1993 when this picture appeared in the New Zealand Herald Morton Coutts was 89 years old and guest of honour at a function held to mark the opening of a 27 million dollar first stage redevelopment of DB's Waitemata Brewery in Otahuhu. What has all this to with radio? Read on.

Back in 1919, Morton Coutts, then living in Taihape, first became interested in wireless at the tender age of 15 and three years later had attained considerable experience in constructing receiving sets. In those far off days all listeners were, perforce, home constructors as there were no commercially built sets available. Not that there was anything much to listen to, as spark transmissions from coastal stations and ships at sea were the only signals to be heard and this, of course, required a knowledge of Morse on the part of the listener.

By the end of 1921 the young Morton Coutts had progressed to ownership of one of the most elaborate receiving stations in the country, a 4-valve affair consisting of an all wave tuner having no less than 15 honeycomb coils, a regenerative detector and a one valve AF amplifier. Two more valves were used in a separate amplifier which fed one of the latest wonders of the age - a loudspeaker.

Anyone familiar with the state of the art in those days will know that loudspeakers were almost unheard of, in fact very few people had ever seen one, yet alone actually owned one. The one appearing in the picture is a Magnavox R-3, one of the first horn speakers available and a "dynamic" at that; a real moving coil job requiring a 6-volt battery to energise the field coil.

Like many experimenters of the day, Morton Coutts eventually became dissatisfied with just listening and wanted to be able to transmit as well. Prior to the introduction of Radio Regulations in January,1923 those few individuals who had transmitting sets were operating them on temporary permits and it was not until after that time that licences and callsigns were issued by the Post & Telegraph Dept. So it was that in November, 1923 Morton Coutts became licensed as one of the first six Grade 1 Transmitting and Receiving stations, his callsign being 2AQ. Initially there were no prefixes in use but it wasn't long before 'Z' and then 'OZ' were used followed finally by 'ZL'

By 1928 2AQ had been authorised to operate as a broadcast station on 320 metres in addition, but by that time work was beginning to interfere with pleasure; an advertisement in New Zealand Radio for October 13, 1928 announced that Morton Coutts was moving to Auckland and disposing of much of his gear. Although the move was for business reasons it was not the end of his ham activities even though they became less important as time went by.

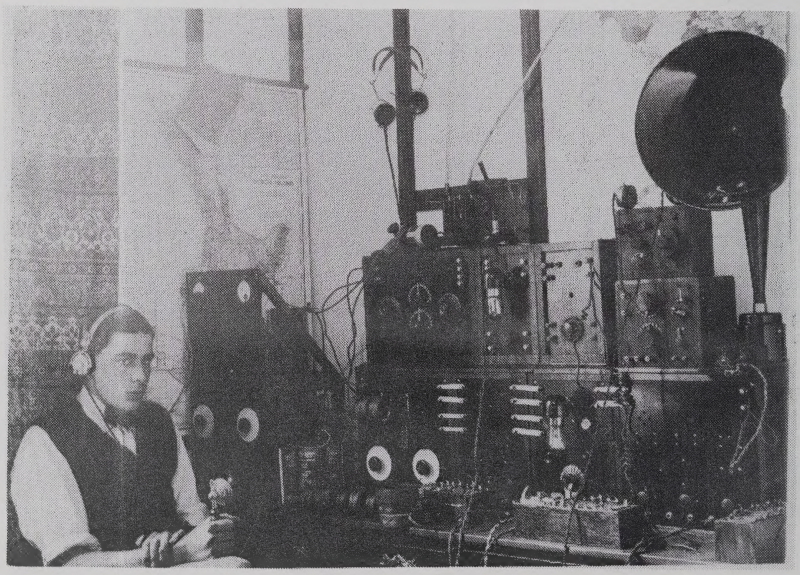
After arrival in Auckland in 1929 no time was lost in applying for a First District callsign, hopefully 1AQ but this was already allocated and ZL1BQ was the nearest available. This callsign was held until the outbreak of World War ll when all ham stations were put off the air

"for the duration" Originally, Morton Coutts occupied a house in Great South Road Otahuhu right next to the Waitemata Brewery, the location being deliberate, as will become obvious as our story progresses. At this location a 100 foot lattice tower was erected to hold one end of the aerial the other end of which was attached to a tall pine tree. Ham radio activities were carried on until 1933 after which time they were finally discontinued altogether although the title to 1BQ was retained as mentioned above. After the war, the station was not relicensed and the callsign passed to other hands.

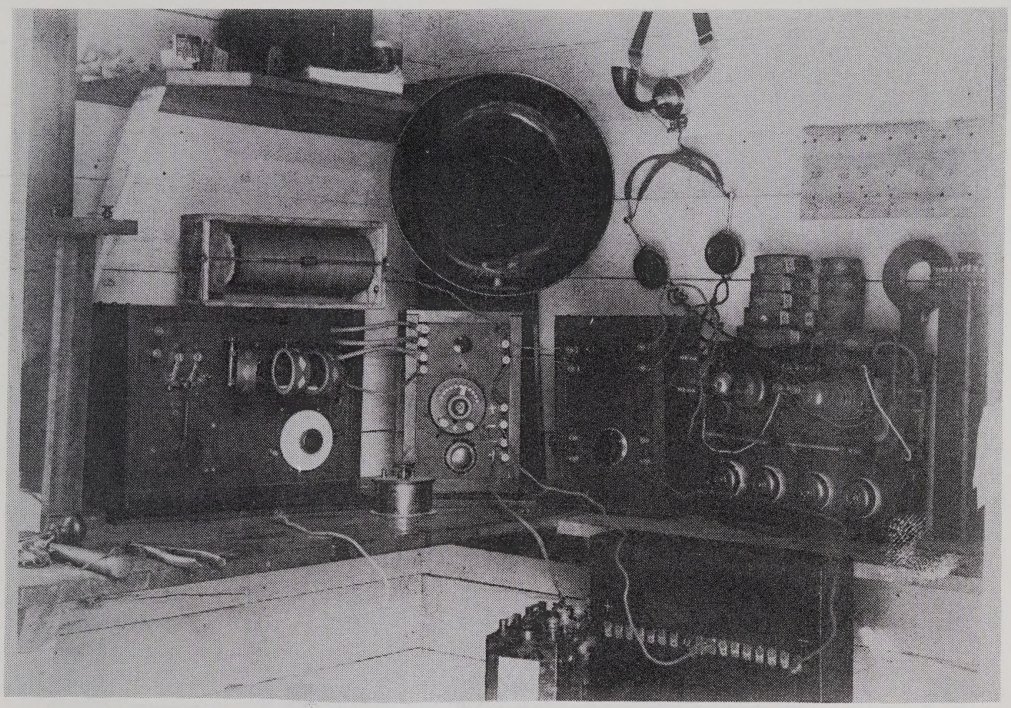
On the occasion of the 50th Anniversary of the issuance of the Radio Regulations, held by the NZART in 1973, Morton Coutts was made an honorary member of the Old Timers' club in recognition of his past activities, though at the time he had not been licensed for over 30 years.

Earlier, it was mentioned that business had begun to interfere with pleasure and it was this that led not only to the demise of 2AQ, but to the cessation of ham activity altogether. To understand how this came about it is necessary to know something of the family history. Morton's grandfather, Frederick Joseph Kuhtze, came to New Zealand from Bavaria in 1860 and in 1867 established a brewery in Cromwell. From there the family moved to Taihape and established the Main Trunk Brewery. This is where our story really begins for it was here that Morton's interest in radio began. First though, a word of explanation on the family's change of name. At the outbreak of WW 1 in 1914 anti-German feelings were running high and it was this that led to the name Kuhtze being Anglicised to Coutts, a name which remained unchanged thereafter, though many years later the name Kuhtze was revived for commercial reasons when a new brand of beer appeared on the market- Joseph Kuhtze. How about that? By this time, of course, Morton Coutts himself had long retired from Dominion Breweries Ltd. whose Waitemata Brewery he had helped to found in 1929.

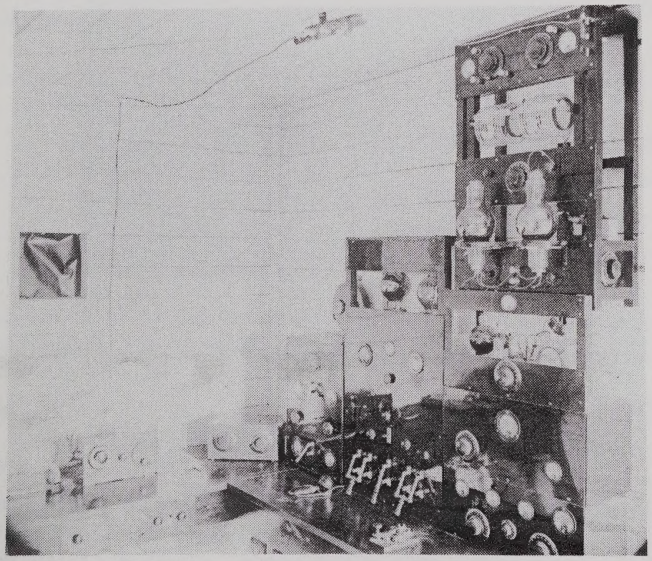
John W. Stokes 1994



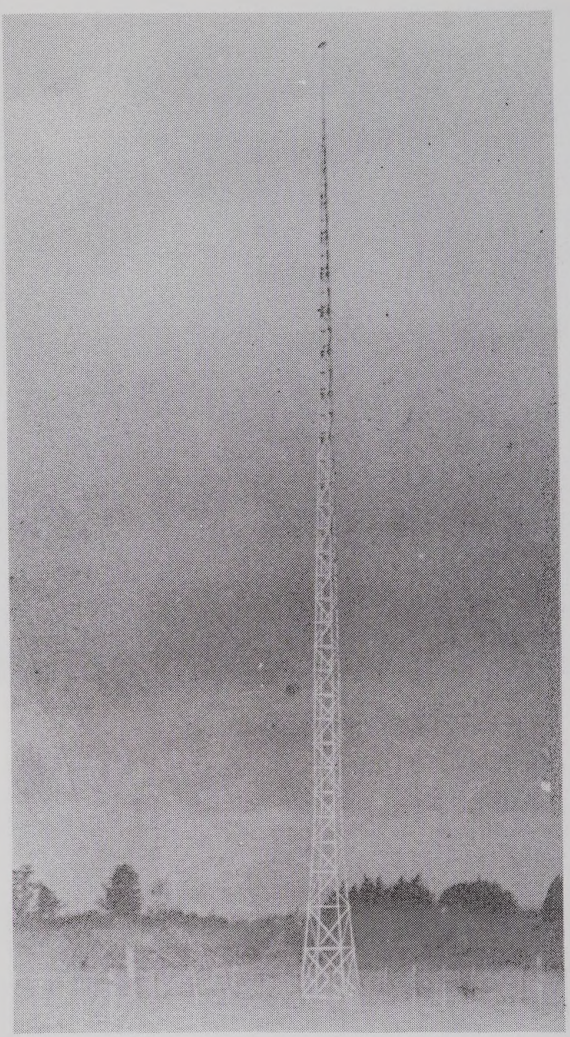
Morton Coutts aged 20 in Taihape, 1924



Receiving station, late 1921.



Receiver on left, transmitter on right. Note aerial change over knife switch fastened to the ceiling.



An Otahuhu landmark in 1930. ZL1BQ's 100 foot lattice tower.

ACROSS THE TEST BENCH

A recent purchase of a Philips Super Inductance coil at a garage sale gave an opportunity to test the Q without disturbing a complete chassis. The measured Q was 200, not too bad for January 1933, the date, stamped on the end of the copper can. Thanks to Alf Veart for the measurements.

Editor.

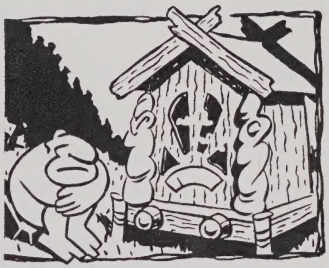
DO YOU SUBSCRIBE?

Wellington Area members of the NZVRS publish their own newsletter and radio trading register, in the last few copies the articles have made me wish I had some of their authors writing for this Bulletin. However they need a few more paid up subscribers to get them a lower copying rate. If you had been thinking of subscribing now is the time. The yearly rate is $15 to be sent to Donald Laing at 85 High Street Eketahuna. Remember send the money to Donald, not to us in Auckland as this is totally separate from your NZVRS subscription.

Editor.

LOOKING BACK

When I received my copy of the November 1993 Bulletin something on the cover struck me as being different, the antenna downlead terminated in a small maori meeting house radio, possibly the quintessential NZ radio. How many other readers spotted this?
Thanks to Metro Magazine and to the artist Jasper Berlin for allowing us to reproduce this illustration. A word of caution to the elves who inserted this item, please check with the Editor in the future, the laws of copyright must be respected.



Apologies for those who could not see the dog in the cover photo, one too many reproduction processes and he faded into shadow.

Editor.

SUBCRIPTIONS 1994-1995

A form is enclosed with this Bulletin. Subscription rates remain the same as last year $15.00 for New Zealand. Overseas rates stated on the renewal form.

Bryan Marsh. Treasurer.

NEW MEMBERS

J.A.G.Carlyle	Auckland	T.M.Pryor	Auckland
D.W.Burnett	Canada	R.B.Cooper	Mangonui

THE ZC1

NEW ZEALAND'S OWN WWII SET

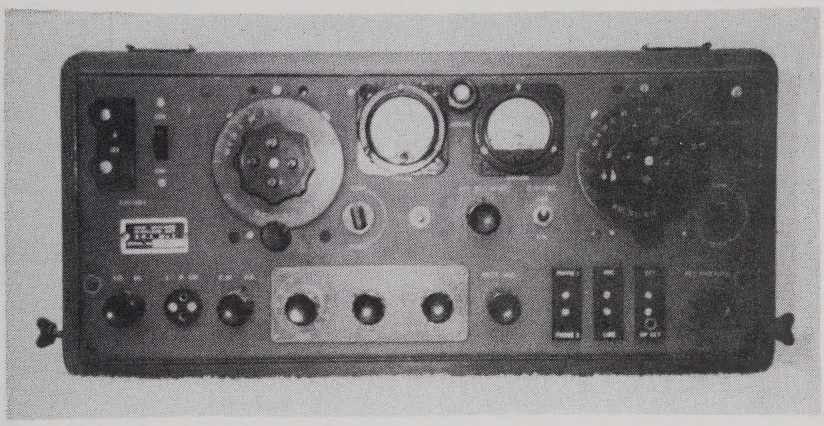
IAN SANGSTER ZL1UAC AND GEORGE MCLEAN ZL2BGZ

The ZC1 is a part of New Zealand's radio production history that deserves some further documentation. It is a set that provided work for many factories in WW II and in its requirements for tropicalisation and corrosion resistance may have instituted manufacturing processes that upgraded the quality of many post war domestic receivers . Now some fifty one years after its introduction in the field we will cover its models and their variants. Many aspects of its design and production were carried out under a cloak of secrecy and at the time. Many of the participants are no longer with us thus we can only report the facts we find.

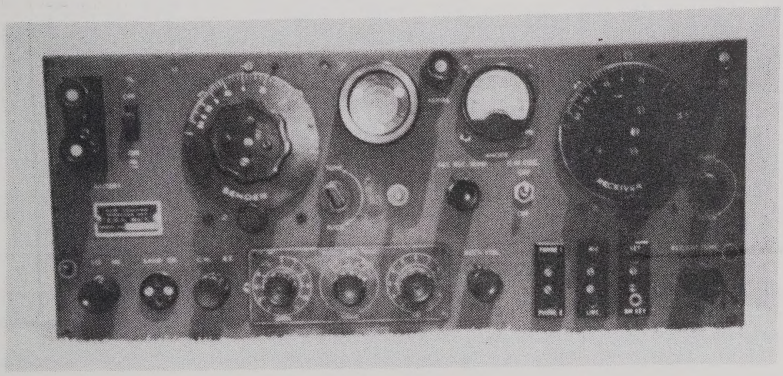
Collier and Beale's 25th anniversary year booklet of 1951 under a heading ...."The War Years" states:-
"In the preliminary stages of the war, and throughout its duration, we were greatly assisted by the interest and co-operation of the Post and Telegraph Department. This facilitated the production of an extensive range of special equipment's for the New Zealand and Overseas Authorities, and included the following: Radar Sets, Marine and other Communication Equipments for telegraphy and telephony, Ultra High Frequency Communication Sets, Radio-Telephone Terminal Apparatus, Public Address Systems, etc. Perhaps the best known of the special equipment produced during the period was a military transmitter and receiver set designed by us in the early war years and later known as the Z.C.1. The production of this set ultimately occupied the whole of the New Zealand radio manufacturing industry for the last three or four years of the war."

The ZC1 Mk I is a single band 2-6.5 MHz transmitter receiver in a steel case which is somewhat larger than the back pack sets, being suitable for jeep, truck or field base operation. Its power supply requirement is 12 volts at 4 to 6 amps. The maximum output power is 2.75 Watts. The purpose of the ZC1 wireless set as listed in its working instructions was as follows, " the ZC1 was designed because it was found that the types of sets available at the time were unsuitable for communication under the ranges at which it was required to operate in New Zealand". The range is listed at 25 to 35 miles, using the 34 foot rod aerial supplied, in rolling country. A following statement qualifies this " considerably greater ranges may be obtained by the use of horizontal aerials and sky wave working" something which subsequent service and civil operators would concur.

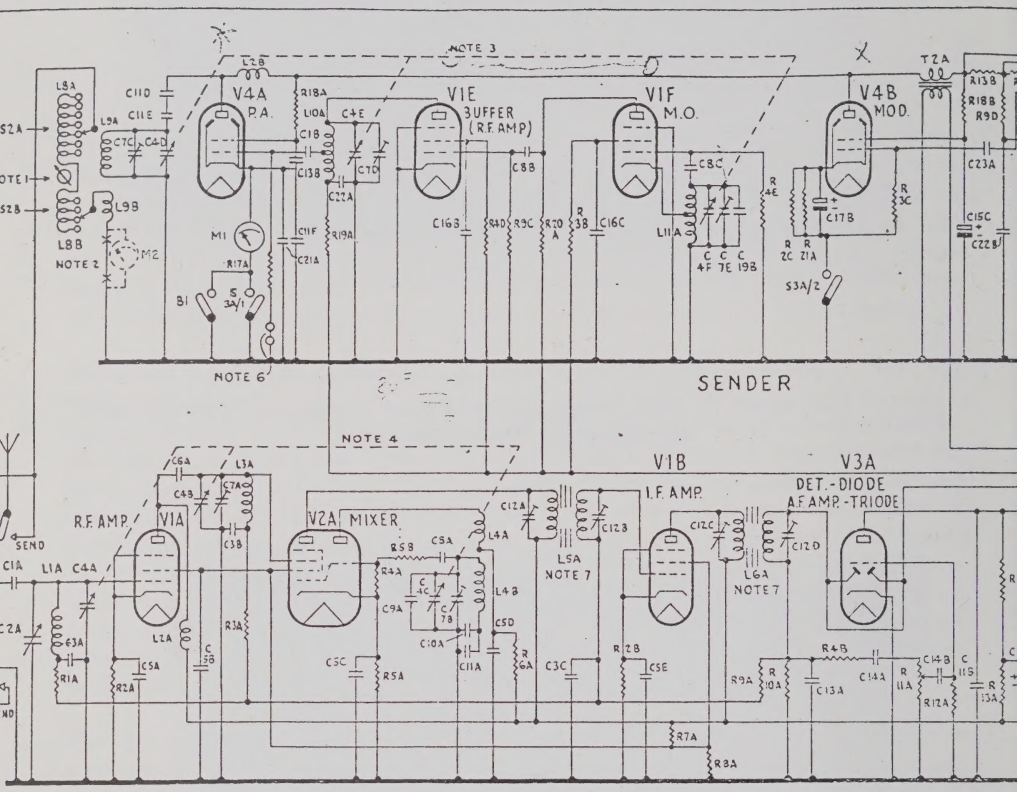
The receiver has a 6U7G RF, 6K8G mixer, 6U7G IF, 6Q7G detector and 1st audio, 6U7G output with 6U7G BFO. The transmitter uses 6U7G for master oscillator, 6U7G buffer, 6V6GT PA, 6V6GT modulator and 6U7G modulation amplifier. The power supply is vibrator with a pair of 6X5GT's as rectifiers and a tapped transformer to give two switchable HT voltages and thus two power outputs.



Mk 1 ZC I first model. The second was minus the RF meter. A plate covered the hole and a watchholder was attached to the plate.

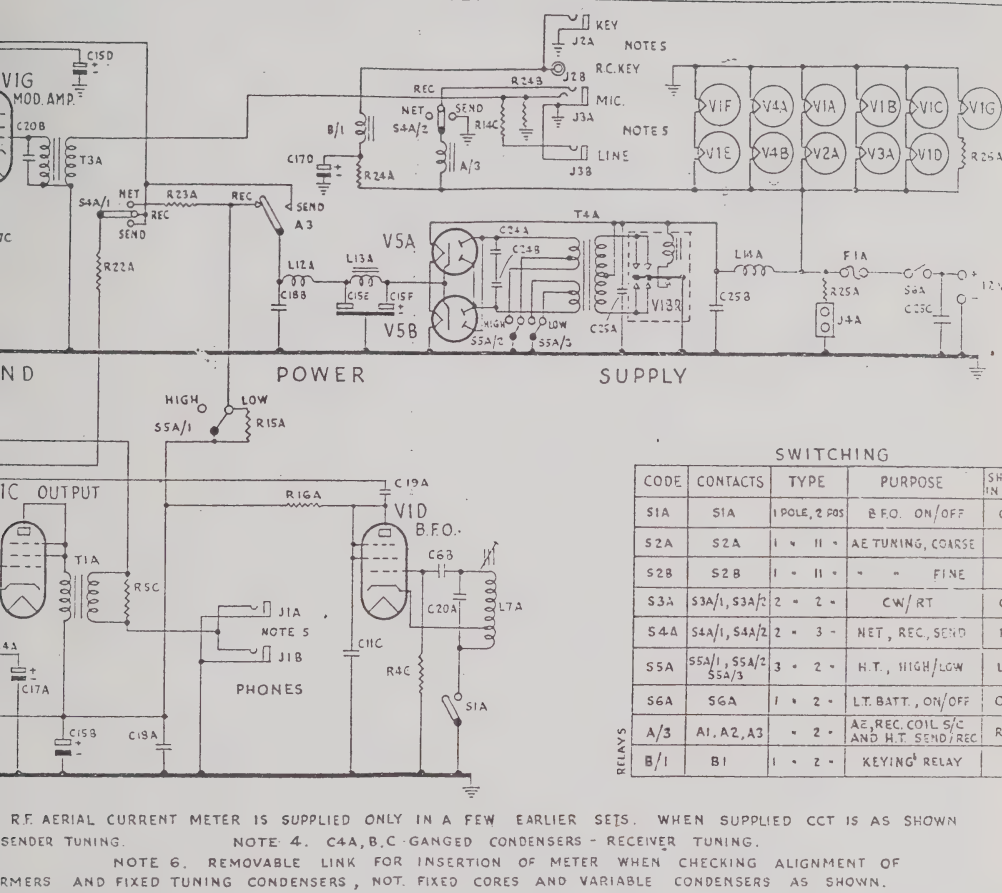


Mk 1 ZC 1 third model.



NOTE 1. VERNIER ANT. CCT TUNING CONTROL - METAL DISC ROTATABLE WITHIN FORMER OF AERIAL TUNING COILS. N
BY BROKEN LINES AND CONNECTION SHOWN ✕——✕ IS DELETED. NOTE 3. C4D, E, F GANGED CONDEN
NOTE 5. MOUNTED IN PAIRS IN COMMON MOUNTINGS - PHONES, J1A, J1B - KEY & R.C.KEY, J2A, J2B - MIC & LINE, J3
SENDER. NOTE 7. SETS AFTER SERIAL NO. 12000 (APPROX.) WILL HAVE VARIABLE CORES IN I.F. T

WIRELESS SET N9



SWITCHING

	CODE	CONTACTS	TYPE	PURPOSE	SHOWN IN POS
	S1A	S1A	1 POLE, 2 POS	B.F.O. ON/OFF	OFF
	S2A	S2A	1 " 11 "	AE TUNING, COARSE	–
	S2B	S2B	1 " 11 "	" " FINE	–
	S3A	S3A/1, S3A/2	2 " 2 "	CW/RT	CW
	S4A	S4A/1, S4A/2	2 " 3 "	NET, REC, SEND	REC
	S5A	S5A/1, S5A/2 S5A/3	3 " 2 "	H.T., HIGH/LOW	LO
	S6A	S6A	1 " 2 "	L.T. BATT., ON/OFF	OFF
RELAYS	A/3	A1, A2, A3	" 2 "	AE, REC. COIL S/C AND H.T. SEND/REC	REC
	B/1	B1	1 " 2 "	KEYING RELAY	–

R.F. AERIAL CURRENT METER IS SUPPLIED ONLY IN A FEW EARLIER SETS. WHEN SUPPLIED CCT IS AS SHOWN

SENDER TUNING. NOTE 4. C4A, B, C GANGED CONDENSERS - RECEIVER TUNING.

NOTE 6. REMOVABLE LINK FOR INSERTION OF METER WHEN CHECKING ALIGNMENT OF

RMERS AND FIXED TUNING CONDENSERS, NOT FIXED CORES AND VARIABLE CONDENSERS AS SHOWN.

I MK. I - SCHEMATIC FIG. 9 DRG. 336

The ZC1 Mk I has been found in three versions. The first as noted on the circuit has an aerial current meter M2. Early sets also had variable condensers in the IF transformers and fixed cores a situation which according to a note on the circuit diagram was reversed after serial number 12000. The second version of the Mk I has the hole where the aerial current meter was fitted covered with a plate on which is screwed the watch holder. The third and most commonly seen version has no extra meter hole and the watch holder screws directly on to the panel in the same position.

The ZC1 had matching ZA1 RF power amplifier available for long range or Air Support communications. This unit came in a case somewhat smaller than the ZC1 and used two 807s in parallel in class AB1 as an RF linear amplifier. A later version, the ZA1 Mk II was different in that it used a pair of 807s in parallel class C modulated by another pair of 807s with a 6V6 phase inverter and a 6U7 microphone pre-amplifier and was built into a modified Mk I case and chassis.

Dating a ZC1 or indeed attempting to estimate total production numbers using serial numbers is fraught with difficulty. George McLean has several Mk I ZC1s and for example the serial number of the third version, that is the one with no hole for the RF meter is 13476, whereas the number of the second version is 14455.The jumbling of serial numbers issued to each set was for security reasons in case of capture by enemy forces. Bob Long of Radio Ltd in Auckland, a ZC1 manufacturer estimates total production to be approximately 30,000, that is Mk I and II combined.

The ZC1 was issued at Guadalcanal and introduced to active service in the Pacific at Vella Lavella where the New Zealand troops landed at 8am on the 18th of September 1943. The history of the 3rd division 2nd NZEF states " Various types of wireless sets are used, each of which has a given range, but it was soon found that those ranges did not apply in the jungle. A New Zealand-made set, known as the ZC1, proved to be the most suitable". These were used in conjunction with No. 48 sets.

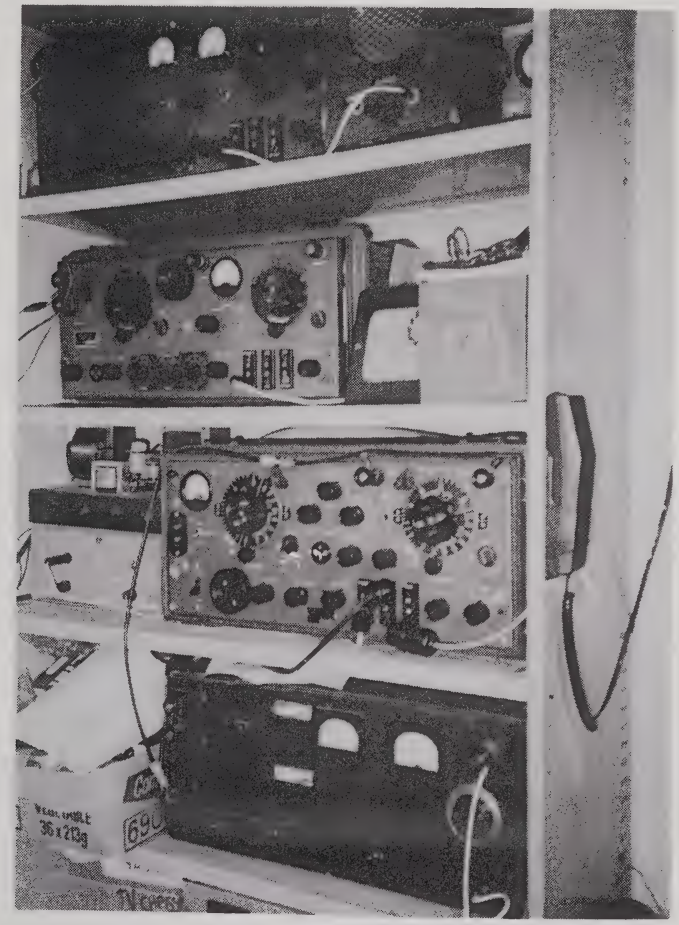
Ralph Slade of Philips, George Wooler of Akrad and Jim Eckford of SOS worked for the Ministry of Supply charged with coordinating the New Zealand radio manufacturers in production of the ZC1. Collier and Beale as the designers were manufacturers as were Radio Ltd in Auckland. Radio Corp, Philips, Akrad and the rest of the industry all played a part. Completed sets were exhaustively tested in evironmental rooms to simulate tropical conditions, Army inspectors checked each set giving it a drop test to check for dry solder joints.

The Collier and Beale staff had acquired a rather grisly war memento, a Japanese skull which they called "Yorrick". This was sent to the meter luminising section, duly coated with luminous paint and then hidden in the darkened environmental test room just before Ralph Slade was due to make a visit, his reaction is unrecorded.

The design and development of the Mk I has been credited to Percy Collier and Bill Fever (ex ZL2AU) and when the the time came for a design revision there may have been a contest to

REFERENCES

1926 to 1951 25th Anniversary Year Collier and Beale Limited.
Working Instructions New Zealand Wireless Set No. ZC1 Mk I. Part 1 . General Description and Operation. First Line Maintenance.
Working Insructions New Zealand Wireless Set No. ZC1 Mk II. Part 1. General Despription and Operation. First Line Maintenance.
Working Instuctions New Zealand Wireless Set No.ZC1 Mk II Part II. Technical Description and Maintenance
Collier and Beale Index of Bulletins.
Headquarters. A Brief Outline of the Activities of Headquarters of the Third Division and the 8th and 14th Brigades in the Pacific.



A shelf of ZC1's in George McLean's ham shack. On the top shelf is a Mk I 1st version. Second shelf a Mk I 3rd version. Third shelf a Mk II and below that a ZA1 Mk. II RF Amplifier. Note the ZC1's run on a 12 volt car battery with original power supplies.

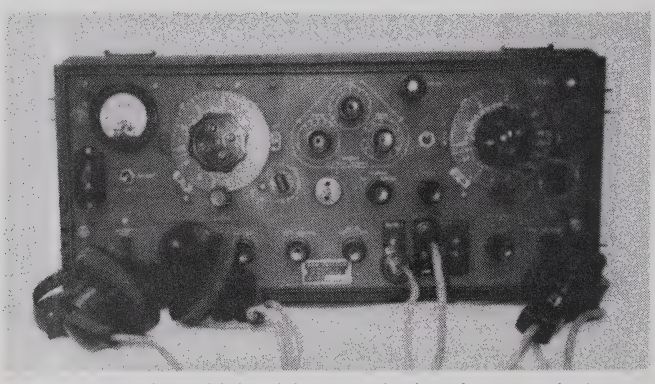
pick a replacement. The Mk II design is commonly regarded as the work of J. Orbell at Radio Ltd. The major change between the versions is that the Mk II is dual band having a LF band of 2-4 MHz and an HF band of 4-8 MHz. The 6X5 rectifiers were replaced by a synchronous vibrator power supply set-up and the switchable HT voltage feature was dispensed with.

During its life the Mk II remained relatively unchanged though a couple of points are of note. In George McLean's collection is a Mk II which has evidence of being an early pre-production version in that some of the front panel switch position lettering is missing, no dial clamps are fitted and internally pencil markings show where components were marked out for cutting. Some Mk IIs had rubber "flying leads" for the combined headset microphone as fitted to the No. 19 set and No. 62 set possibly for commonalty among operators in the field.

In a 1956 "Break-In" advertisement Sine Wave George lists Mk I ZC 1s for fifteen pounds nineteen and six and in his description says that they are higher powered and offer better speech quality than the Mk II. Post war Collier and Beale put out a kit to convert the Mk II for marine use. This consisted of a coil set for the receiver to change the LF band to a broadcast band and the HF band to the marine band. The VFO was converted to crystal control. Various government departments including MOT and Forest Service used the ZC1 post war. An issue was made to Amateur Radio Emergency Corp.

Break-In published many articles on ZC1 conversion for amateur operation including one in February 1947 by Ralph Slade ZL2BK, who should have been familiar with the set. In the introduction Ralph's wartime job was listed as Controller of Radio Production.. If one is interested in using a ZC1 on the air again these are recommended reading, they are also helpful in understanding what was done to the ZC1 if one is returning an example to original.

The intent must have been to manufacture many ZC1s as in the post war surplus market Jim Eckford exported a quarter of a million 6U7Gs to the USA, yet the 6U7G is still the most common valve of its era encountered at junk sales. Another tale concerns four and a quarter tons of Mumetal transformer laminations left over from ZC1 microphone transformer production which were sold back to the USA, netting enough to see one of our members into a new car.

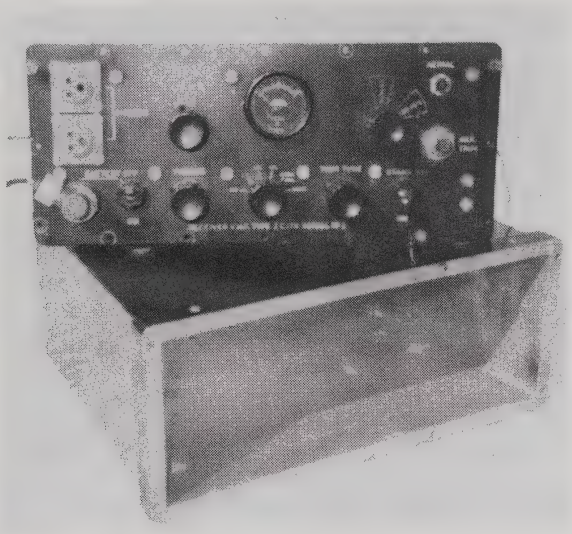


A ZC1 Mk II with headphones and microphone attached.

ZC 178. WHERE DOES IT FIT IN?

In the Waikanae Radio Museum is a recieiver which is labelled "Receiver V.H.F. Type ZC178 Serial No. 2." It has three VHF bands and is switchable between a.m. and f.m. The unit is reputed to be a replacement for the ZC1 Mk II, supposedly developed by Auckland University from an English design.

Can any of our readers substantiate this or disprove it? Any data will be gratefully received by the Editor.



The ZC178 sitting on top of its welded alloy case.

THE VINTAGE WIRELESS COMPANY CEASE TRADING

Bryan Marsh has received a letter from Geoff Arnold in the U.K. which is reproduced here in part. " The Vintage Wireless Co. after some months of rumour, ceased trading about September. Service data and manuals were aquired by a firm called Savoy Hill Publications, who have yet to make any announcement of address or phone number.

Valve stocks were purchased by Valve and Tube Supplies whose address is Unit 2A Rink Road Industrial Estate, Rink Road , Ryde. Isle of Wight PO33 2LT. They are currently sorting and cataloguing stocks, but are open for enquiries."

Letter is dated 29th December 1993.

THE SILVER-MARSHALL 738 SHORTWAVE CONVERTER

JOHN W. STOKES

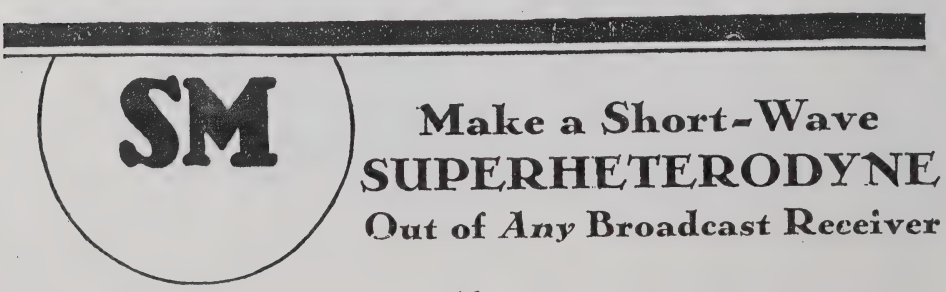
Prior to about 1930 shortwave listening was confined mainly to those enthusiasts who were prepared to construct their own receivers. True, there were commercially made sets available, but they were in the minority. However, as the number of shortwave broadcasting stations grew and the ordinary listener came to realise that it was possible to receive stations from all over the world, interest in this new form of listening grew. Remember, this was several years before the introduction of multi-band "all-wave" receivers and very few listeners were keen enough, or could afford, to buy a SW receiver in addition to a regular BC set. The stage was set for the for the introduction of the superheterodyne shortwave converter. Such converters changed the frequency of the incoming SW signal to (usually) about 1000kHz so that it could be received on any BC set, either TRF or superhet.

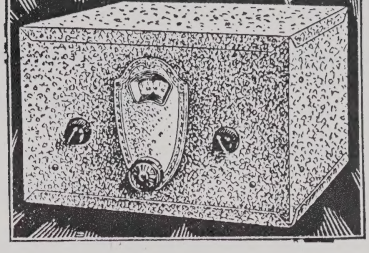
As one of the first licensed superheterodyne manufacturers, Silver-Marshall Inc. wasted no time in getting superhets on the market. As early as October 1930, at almost the same time as RCA's first modern superhet appeared, the S-M 724 was announced. In the same month the production of the 738 converter was another first for Silver-Marshall. It was described in the release notice as being "..... the newest and most interesting of all sensations.." Imagine that!

The 738 used a type 24A tube as a mixer with a type 27 as oscillator coupled to the control grid by means of a pre-set capacitor. The main tuning control was a single 150pf variable capacitor which tuned the oscillator circuit. Another (smaller) 150pf capacitor tuned the input circuit, while the aerial was coupled to the mixer grid through a preset trimmer. As can be seen from the illustration, a National Type E Velvet Vernier dial was fitted. A set of eight plug-in coils (two for each band) covered from 18 to 206 metres. A self-contained power supply provided the necessary heater voltage as well as HT from a type 26 triode connected as a half-wave rectifier.

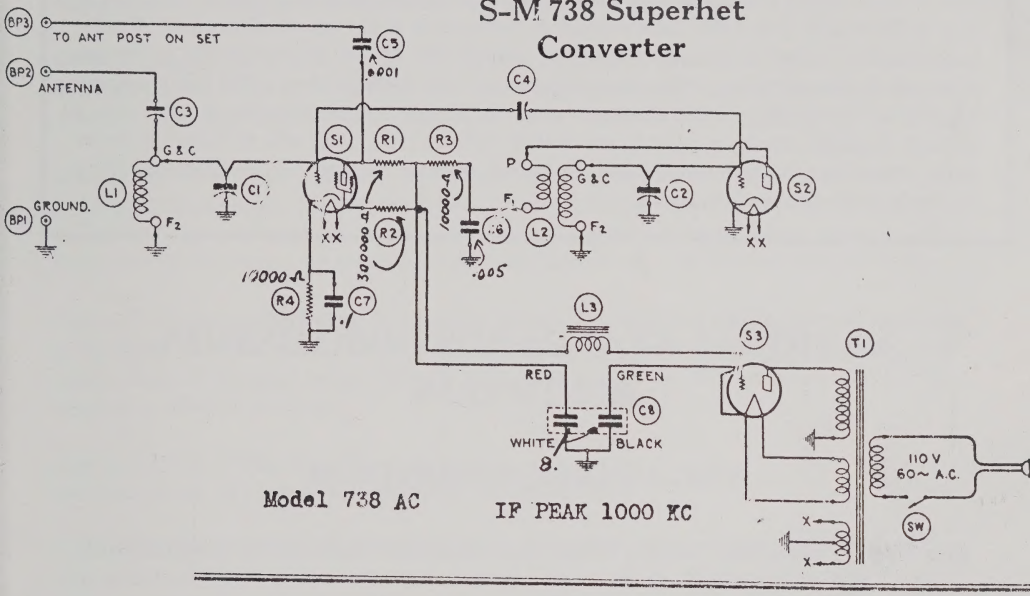
The production of a shortwave converter at such an early date obviously reflected McMurdo Silver's personal interest in DX and SW reception, for, as is now well known, he later went on to produce high quality all-wave receivers under his own name.

In New Zealand the agency for Silver-Marshall products was shared by Factory Imports Ltd and Thos Ballinger Ltd, with Bond & Bond Ltd acting as Auckland distributor.



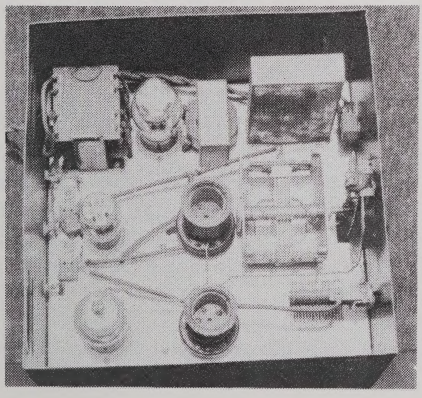


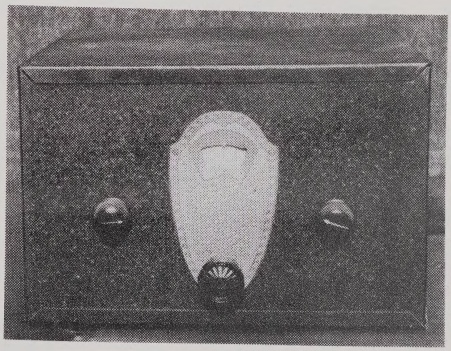
S-M 738 Superhet Converter



Model 738 AC

IF PEAK 1000 KC





OBITUARY

JOHN BILTON

John Bilton a NZVRS member who was the subject of an article in this bulletin vol.10 no.3, died on November 25th 1993. John's career in radio began at the age of 17 when an Atwater Kent salesman visited his parents to sell them a brand new AK 60, this struck him as the sort of job which he could enjoy, rather than orchard work. He opened a shop called Bilton's Radio Supplies in Cromwell, Central Otago. In order to provide broadcast music in what was a difficult reception area he opened a radio station 4ZC in 1932. John was an Ultimate dealer and in recent letter to this journal noted that he had recently acquired a 1936 Ultimate battery set that he had sold new in Wanaka.

NATIONAL STANDARDS COMMISSION AUSTRALIA

VNG USERS CONSORTIUM

STANDARD FREQUENCY AND TIME SIGNAL SERVICE TRANSMISSION SCHEDULE

16 Mhz Transmitted between 2200 and 1000 UT (Universal Time). Talking clock each minute, spoken station ident every 15 minutes.
5 Mhz Continuous transmission. Talking clock each minute, spoken station ident every 15 minutes.
2.5 Mhz As for 5 Mhz.
8.638 Mhz Continuous transmission. No voice announcement, VNG Morse ident every 15 minutes.
12.894 Mhz As for 8.638 Mhz.

Per Marion Leiba (Dr.)
Honorary Secretary
VNG Users Consortium.

FAREWELL

Josef Earle of Auckland, a member of NZVRS since 1989 passes on greetings and a farewell as he is moving to Australia.

WANTED

Six pin magic eye valve type 6U5 for Columbus 90X. 80, 6K7, 6K8, 25Z6GT and 6X4 valves. Snow Fischbach 3 Cumberland Street Taupo. Ph. 07-3785378.

Manual or circuit for for Class D wavemeter. Will swap for manual for No. 10 calibrator. Barry Williams 4 Kay Drive Blockhouse Bay Auckland. Ph. 09-6279070

Original speakers for A.K 145, A.K. P717X and RCA R28P. Cabinet for A.K. P717X. Three valve shields for HMV R7. One 25B8 valve. Plus any sets Atwater Kent, RCA, Philco, Zenith, AWA, etc. etc. Bob Cook 3 / 475 Blockhouse Bay Rd. Auckland. Ph. 6266241.

Chassis for HMV R28P cathedral, top money paid. Valves new 6U5 and a pair of PX 25's. 1936-1938 Gulbransen consoles, 1939-1941 Ultimate consoles any Zenith consoles. Stannage radios and any information relating to John Stannage. 1936-39 black cabinet AWA Radiolette38B or similar. Grahame Lindsey Early Sounds. Ph. 3661344 bus. 4182473 a/hrs.

Philco 37-60 chassis and knobs. Radio parts, chassis, knobs, valves and anything of use to me in the repair of valve radios. Leader LAG-26 audio signal generator and Leader LSG-16 RF signal generator in good order. Peter Walsham 50 Princes St. Pukekohe. Ph. 09-2389223 anytime or 09-6271195 a/hrs.

Any back issues of UK Short Wave magazine.
Joe Williamson 15 View Road Warkworth. Ph. 09-4259552.

Cabinet and panel only for for Grebe Synchrophase MU1. Lid for Crosley 41S 'Unitrad" tin box, measures 20.5" x 10.5", die cast edging. Dial scale for Philips 'Hilversum Conbrio' B5Z17A. Dial scale for GEC All-Wave Super Six BC3862.
Arthur R. Williams 26 Centre Street Invercargill. Ph. 03-2168985.

Desperately seeking Radiolette in green or marbleized ivory. Will pay generously and have deco or catalin radios to trade.
Dan Burnett Box 49130, 2900-595 Burrard St. Vancouver Canada V7X 1J5. Ph.604-691-7506. Fax 604-688-0401.

Bakelite cabinet and dial for my Skyscraper (bc), model RU.
Harold Ault c/o Kawhia Postal Services. Kawhia. Phone 07-8710767 collect.

Wireless Radio Set No.21 and any acessories. Valves AR8, ARP12 and ATP4. Instuction manual or copy of same for AVO valve characteristic meter MK IV. Circuit for Skyscraper BAU (see p 73 Golden Age).
Dennis Seymour PO box 23474 Papatoetoe. Ph. 2779480 home and 5730800 work.

Radio Corp small brown covered booklet of August 1938 titled "Columbus Radio" or similar literature. Ian Sangster 75 Anawhata Road Piha RD1 New Lynn. Ph. 09-8149597

MARKETPLACE

Advertisements for the next issue must reach the Editor by the 18 April 1994. Ads should be either hand printed or typed on a separate page. Note: no verbal or phone ads will be accepted. Remember to include your name, address and phone number. There is no charge for ads but the NZVRS is not responsible for transactions between members. Address ads to;
Ian Sangster 75 Anawhata Road Piha R.D.1 New Lynn. 1232.

AVAILABLE

Repairs to vintage radios undertaken to any stage as required. Please phone Peter Walsham 09-2389223 anytime or 09-6271195 (AH).

GM Delco car radio 1936, reconditioned as original, as is, working 6 volt. $500 ono. Please pay freight. Write to M.F.Edwards 6 Melody Lane Otahuhu Auckland 1106.

Radio Limited's (Columbus & Courtenay) fat 6.3 V bulb $2.50 ea, 10 for $20 add postage. Step down 240-110V transformers $50 ea.
Grahame Lindsey at Early Sounds. Ph. 3661344 bus. 4182473 res.

A brace of STC's, 5018 and 5031 in horizontal table cabinets. The 5031 looks like the 5018 on page 71 of More Golden Age but without the magic eye. The 5018 is in cabinet with a round-the -corner speaker grille. $65 for both. Ian Sangster, address above. Ph. 09-8149597.

Assorted radios 1940's and 1950's all going. Contact Murray Stevenson for details.
82 Waimumu Rd. Massey. Phone 09-8325414.

Test gear as follows; AVO electronic testmeter (VTVM) with book $50, Hansen M100 VOM 33Kohm per volt $40. Radios; Ultimate BCU working rectangular dial (see p73 Golden Age) plus spare cabinet for the same, Gulbransen A14 console (p179 More Golden Age), EKCO AW88 (see p138 M.G.A.) needs work, Philips 461 good cabinet and dial, working (see p60 G.A.), Philips 596 9 valve working, Philco (NZ) 717, 201 (p108 M.G.A.), 806 (p49 G.A.) all working, Ultimate 5LN 5valve 1933 (p70 G.A.), Ultimate RB tin cabinet (p133 M.G.A.), RBK bakelite cabinet, FA five band (p73 G.A.). Books; Modern Radio Servicing 1935 and Radio Field Service Data 1936 both by Ghiradi, Modern Practical Radio and Television, Caxton 1948 3 vols, Wireless Servicing Manual 10th ed. 1963 Cocking, Electronic Test Equipment, Risse 1974, General Electrical Engineering, Kemp 1940's includes radio and TV. Reprints; Stewart-Warner catalogue 1926 Hope Gibbons Ltd. shows models 300, 325 etc plus accessories, circuits, station lists etc, 14 pages $5.00. Reproduction wooden knobs for A.K., RCA, Stewart-Warner etc. $5.00 each plus p&p. Large tuning knobs for Zenith with outline $7.50, other knobs can be made to order. Cabinets and woodwork made to order for your homebrew project, also turned work for crystal sets, coils etc, display bases for antique valves. Arthur R. Williams 26 Centre Street Invercargill. Ph. 03-2168985.